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SOME CHEYENNE PLANT MEDICINES

By GEORGE BIRD GRINNELL

Among Indians, as indeed to some extent among the whites, the healing of the sick is two-sided—evil spirits must be driven away and good spirits brought near, and besides, remedies good for the body must be administered. The Cheyenne Indians make use of many plants in healing, and while it may be questioned if they have any real knowledge of the medicinal properties of these plants, long experience has undoubtedly taught them that some are efficacious. Thus some plants are used because they act directly on the organs of the person treated; others, in their belief, possess spiritual power and are administered in order that they may impart to the patient their own qualities. The light powder made from the dry flowers of the prairie “everlasting” when rubbed on the body is thought to protect the warrior from the bullets and arrows of enemies by making him light and quick in his movements, just as this powder is light in weight and is easily stirred by the wind. Properly applied to a horse, it enables it to run for a long time—perhaps by reducing his weight.

Healing by the administration of herbs is practised by men and women alike. Almost every woman possesses certain plants, used as medicine, which are peculiarly her own, and the secrets of which she alone knows. These are usually carried about in a small buffalo-skin sack, often one of those used so commonly for the carrying of stakes for gambling or of sewing materials. Often to each little bundle of an individual medicine is tied some mark of identification, so that the woman may recognize what it is without being put to the trouble of opening it and inspecting the contents. To one bundle may be tied a blue bead, to another a white one, to a third the claw of a bear, to a fourth the part of the beard of a turkey, and others still may be tied with strings of different colors. Sometimes these objects, which at first were attached to the bundles purely for purposes of identification, have come to possess a

more or less sacred character; so that in some cases where the medicine is mixed with water before it is administered, it is necessary to stir the mixture with the identifying article — with the claw of the animal, or the beard of the turkey, or the little stone arrow-head which may be tied to the bundle. Favorite objects for stirring such fluid medicine are the claw or the tusk of a bear. This no doubt has relation to the very common belief in the bear's invulnerability and in its power as a healer.

Formerly almost every man carried about with him, tied to his necklet, his shoulder girdle, or perhaps to his hair, one or more little bundles containing medicine. Some men have herb medicines of which they alone possess the secrets. These may be what we would call drugs, or they may be merely *ma-i-yu'* (mysterious, or spiritual). The old stories tell us that the people learned of the various medicinal plants, and of the uses to which they were to be put, by means of dreams; and that in other cases certain mythological heroes went out with them on the prairie and pointed out plants which they explained were to be used for certain diseases.

MEDICINAL PLANTS

From my old "mother," Wind Woman, of the Northern Cheyennes, I have received a number of specimens of plants used in healing by these Indians. The collection by no means includes all the plant medicines used by the Cheyennes, yet it was difficult to secure even so small a collection and to properly identify the plants. The species procured have been very kindly named for me by Mr Frederick V. Coville, Botanist of the United States Department of Agriculture, and also have been submitted to Dr H. H. Rusby of the College of Pharmacy of the City of New York. Dr Rusby has been kind enough to comment on some of the uses to which these plants are put, and I have introduced his remarks under the different species. To the list of plants used in healing, two dyes are added at the close.

Htā'nē' hīsē' ēyo, Bark Medicine (*Balsamorhiza sagittata* Nutt.). This is used for stomach trouble and for headache. For pains in the stomach, boil the leaves, roots, and stems together and drink the infusion. For headache, steam the face over the boiling

tea, covering with a cloth the head and the vessel containing the fluid. Some of the tea should be rubbed on the painful part. Another doctor recommends it in cases of sore mouth and sore throat, in which case the patient must chew the root and let the saliva run down the throat. To chew the root is good also for toothache, while the root chewed and rubbed over the body is efficacious in any sickness. A tea made of the root is good also for fever, and a little of the root cut into small pieces, boiled and made into an infusion, is given to a woman when she begins to have labor pains, in order to insure easy delivery.

This medicine, which is also called Black Medicine, *mōhk' tāhwis-sē' ēyo*, is thus commented on by Dr Rusby: "This is not a highly important medicinal agent, yet at the present time it is attracting considerable attention as a carminative, antispasmodic, and alterative. It is interesting to note that these are the very properties indicated in the Cheyenne uses." The root of this plant is called Bark Medicine; the leaves are called Black Medicine.

Hē' hēyūts' tsīhiss' ōts, Vomiting Medicine (*Mentha canadensis* L.). To prevent vomiting, grind the leaves and stems fine, boil them in water, and drink the tea slowly.

One of the varieties of this plant is a source of menthol, which latter is largely used as an antiemetic; hence much interest attaches to its use by these Indians.

Mātū' mīnīs' tohīssē' hēyo, Nose-bleed Medicine (*Pterospora andromedea* Nutt.). Used to prevent nose-bleeding and bleeding from the lungs. Grind the stem and berries together, make an infusion in boiling water, and let it cool. When cold, snuff some of the infusion up the nose and put some of it on the head for nose-bleed, and drink it for bleeding at the lungs. This drug is moderately used as an astringent, but is not of commercial importance.

Mōhktāh' wānōsts, Black Sagebrush (in name only) (*Ambrosia psilostachya* DC.). This is used for cramps in the bowels and to stop bloody stools. Grind the leaves and stem fine and make a tea, using a pinch of the powder to a cupful of water. Drink this, and the pains and bleeding will cease.

Ō' wīhīssē' hēyo, Scabby Medicine (*Chrysothamnus nauseosa* (Pursh) Britton). (Has been known as Bigelovia.) This is used to heal

sores which may break out on the body. The leaves and stem are boiled together, and the affected parts are washed with the infusion. If this does not speedily effect a cure, the fluid must be rubbed on hard. In severe cases some of the tea must be drunk ; it is used in this way to cure smallpox. The plant has no medicinal properties known to science.

Tō'wāniyūhk'ts, Fever Medicine ("to-make-cold medicine") (*Psoralea argophylla* Pursh). This is used to reduce fever. The leaves and stems are ground fine and boiled in water, and the tea is drunk. To cure a high fever, the leaves and stem ground to powder are also mixed with grease and rubbed all over the body.

The medicinal properties of this plant are not known to science, but it is a near relative of species having active and important properties, though not much used in medicine. Its use to reduce fever is of great interest and very suggestive.

Mākhkă'nōwās, Poison Weed Medicine (*Astragalus nitidus* Dougl.). This plant is used in cases of poisoning by ivy or other noxious plants. The leaves and stems are ground fine, and when the poisoned skin presents a watery appearance the powder is sprinkled on the afflicted parts.

The use of this plant is also interesting, and if a really efficient and reliable remedy could be found for ivy poisoning (and it is possible that this plant might be such) it might become a very important article of trade. This plant is closely related to the famous loco weed.

Hōh'āhēänōis'tat, Paralysis Medicine (*Lithospermum linearifolium* Goldie.). This is used for paralysis, and also in cases where the patient is irrational from any sickness. For paralysis the leaves, roots, and stems are ground fine, and a very small quantity of the powder is rubbed on the paralyzed part. It causes a prickling sensation of the skin. It is also said to be sometimes used green, the doctor wrapping some of the leaves in a cotton cloth, then crushing them with her teeth and rubbing the affected parts, when the same prickling or stinging sensation is felt. Where the person is irrational by reason of illness, a tea is made of the roots, leaves, and stem, and rubbed on the head and face. The plant is also used when a person is very sleepy — hard to keep awake. It is chewed

fine by a doctor, who spits and blows the medicine in the patient's face and rubs some of it over his heart.

The prickling sensation referred to is probably largely mechanical and is due to the extremely fine hairs which will account for the counter-irritant effect. Beyond this the borage family is very little understood, though many of its members are used as diuretics.

Nó'āniyūn, Smoke Leaves (*Arctostachylos uva-ursi* Spreng.). Used for pain in the back, and especially for sprained back, when the pain remains for some time. The stems, leaves, and berries are boiled together and the infusion drunk. The wet leaves should also be rubbed on the painful part.

This is the well-known bear-berry and is a standard officinal drug. It is used as a diuretic in cases of congested kidney and is very effective. In view of the qualification as to its persistence, the pain in the back to which the Indians allude is undoubtedly referable to disordered kidneys, so that we have again a remarkable confirmation of the keenness of these people in appreciating the properties of their drugs.

Mōtsn'ist, Sore-throat Medicine (undetermined). Used for sore-throat ; the root is chewed and the saliva swallowed.

Wōhkōm'issē'ēyo, White Medicine (unidentified). An herb or weed which grows to about two feet in height. The root is generally ten or twelve inches long, and from a quarter to half an inch in diameter. The root, which alone is used for medicinal purposes, is cut in small pieces, boiled, and the tea drunk for diseases of the stomach. A stronger decoction is made for allaying inflammation by external application. The name is derived from the color of the root. The plant does not grow in the country now occupied by the Northern Cheyennes, and I have been unable to identify it.

Tātāwisse'hēyō, Blue Medicine (*Lygodesmia juncea* Pursh), or *Mātānā'hisse'hēyō*, Milk Medicine. An infusion made of this plant is drunk by women who have had children and have an insufficient supply of milk, for the purpose of increasing the flow. With this is often used the following :

Mōtsi'hīyūn (*Actæa arguta*). Boiled with the blue medicine. Either can be used alone, but it is better to mix them. The last-named medicine is said to have been brought to the tribe when *Motsiyu*, the Culture Hero, brought the arrows, hence the name.

Mōwē' hēmōhk' shīn, Elk Mint (*Agastache anethiodora* (Nutt.) Britt.). Used as tea by boiling the leaves and forming a pleasant drink. An infusion of the leaves when allowed to get cold is good for pain in the chest (as when the lungs are sore from much coughing), or for a weak heart.

Wī' ūhkhissē' hēyo, Bitter Medicine (*Acorus calamus*). An infusion made from a bit of this root boiled in water is drunk for pain in the bowels, and the root chewed and rubbed on the skin is good for any illness. A bit of the root tied to a child's necklet, dress, or blanket, will keep the night spirits away.

This plant does not grow in the northern country, but is obtained by the Cheyennes from the Sioux. In former times they smoked it with red-willow bark.

Sīhyā' īndwēhissē' hēyo, Strong Medicine (*Anaphalis margaritacea* or *subalpina*). If a gift, to be left on a hill, is to be made to the sun or to the spirits, this "strong medicine" is used to smoke and purify it before it is taken out. The leaves of the medicine are scattered over a burning coal, just as sweet grass or sweet pine is used in smoking other things. In one of his little medicine bundles each man carries some of the dried and powdered flowers of this plant, and formerly, when going into battle, he chewed a little of it and rubbed it over his arms, legs, and body, for the purpose of imparting strength, energy, and dash, and thus protecting him from danger. A man still puts a little of the powder on the sole of each hoof of the horse he is riding, in order to make it long-winded, and he also blows a little of the powder between the animal's ears also for the purpose of increasing its wind. The reason for rubbing the medicine on the body is that the warrior may be hard to hit by an enemy. Spotted Wolf warned his sons that after this medicine had been rubbed on them, they must let no woman touch them, for to do so would render the medicine powerless.

The dried flowers of the plant are made into a very fine light dust, which is easily blown away or moved by any force, and the qualities that it is believed to impart to one treated with it probably have reference to this readiness with which it is moved.

Mōhk' sin, Mint (unidentified). This mint is used in making a tea for drinking, chiefly for the sick. A little of the plant may be used with the bark medicine to give it a pleasant flavor.

To the list of medicinal plants I add the following two vegetable dyes :

Mā'ttūkōhē' (*Rumex venenosa* Pursh). Roots and dried leaves of yellow and red dye. The roots are cut in small pieces and boiled. After the infusion has cooled, the feathers, quills, or hair to be dyed are put in the water. If a deep color is desired, the articles are left in a covered vessel of dye all night ; soaking for a shorter time produces a paler color. When a red dye is required, ashes are put into the yellow dye liquor, which is boiled again and allowed to cool, when it becomes red. The strength of the color is varied by longer or shorter immersions. If a black dye is needed, the bark is taken from red-willow shoots, scorched and pounded fine, and put in the red or yellow dye and boiled again. Though the Cheyennes never use it for that purpose, cloth may be dyed with these mixtures.

Hēhyōwō'tsts (*Evernia vulpina* Ach.). Yellow Dye, or Yellow Root. This plant is boiled in water, and articles steeped in the liquid are dyed yellowish green.